

AIR MANAGER SYSTEM FOR METAL AIR BATTERY

Abstract of the Disclosure

An air manager system for a metal air cell is disclosed. The system includes: (a) a housing having an air mover and an air outlet opening; and (b) a cartridge that is removable from the housing. The cartridge includes (i) a metal air cell; (ii) an air inlet opening located toward a first end of the cartridge and adjacent to a first side of the cartridge; (iii) an air outlet opening located toward a second end of the cartridge and adjacent to a second side of the cartridge; (iv) a first diffusion tube communicating with the air inlet opening of the cartridge, the first diffusion tube extending along the first side of the cartridge; (v) a second diffusion tube communicating with the air outlet opening of the cartridge, the second diffusion tube extending along the second side of the cartridge; (vi) a first distributor tube communicating with the first diffusion tube, the first distributor tube extending from the first diffusion tube along the first side of the cartridge through a change of direction and being adjacent to an air plenum, the first distributor tube including a plurality of openings communicating with the air plenum; and (vii) a second distributor tube communicating with the second diffusion tube, the second distributor tube extending from the second diffusion tube along the second side of the cartridge through a change of direction and being adjacent to the air plenum, the second distributor tube including a plurality of openings communicating with the air plenum.